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# Brazil

## Amazon Drought October 2023

for every child

### Highlights

- While the Amazon rainforest is one of the planet's main lungs, the Amazon River and its hundreds of tributaries are its arteries and veins, but now dried up and depriving hundreds of thousands of people of a decent living.
- The Rio Negro in Manaus is at its lowest level ever since it has been monitored (1902) amid what is considered the most severe drought ever.
- The State of Amazon in Brazil declared 59 out of 62 municipalities in emergency situation (as of 19 October 2023).
- There are an estimated 146,000 families affected, totaling more than 600,000 persons.
- The Government response plan involves support for affected families by distributing food ration, personal hygiene kits, sodium hypochlorite, draining and desilting rivers (to open the way to boats), renegotiating debts and promoting rural producers, anticipated social assistance and provision of generators to secure energy in affected municipalities.
- UNICEF is advocating and supporting the Amazon State to define and implement anticipatory child-sensitive measures, considering the likely upcoming impacts on children's health (diarrhea, acute malnutrition), protection and education, and is coordinating its response with other UN agencies present on the ground.
- UNICEF Brazil has reprogrammed \$US 90,000 to quick start a first response and is mobilizing its private sector for strategic donations.

### Situation in Numbers\*



### Targets\*



**50,000** children and their families targeted with service delivery

### Funding Requirements\*

**\$1,105,000**  
Investment needed (in USD)

\* Preliminary figures, targets and funding requirements, to be updated as damage and needs assessments are conducted, and more information is available regarding the situation and needs of children and families.

### Situation Overview & Humanitarian Needs

Fifty nine out of 62 municipalities of the Amazon State in Brazil are currently facing a drought emergency.



The affected surface represents about 1,5 million km<sup>2</sup>, 18% of Brazil's territory and three times the size of France.

In addition, although rains have resumed over Peru, the national disaster center released a bulletin projecting a high likelihood of very limited rainfall over the Amazon in the next two months, while rains normally start in October.

The level of the Rio Negro at the Manaus port reached a historical record with only 13.59m, beating the previous lowest level registered in 2010. This is the lowest level ever from since when the water level has been monitored, in 1902 ([Manaus Port](#)).

Affected areas in Amazonia state  
(Source: Civil Defense, Amazon State, 20/10/2023)

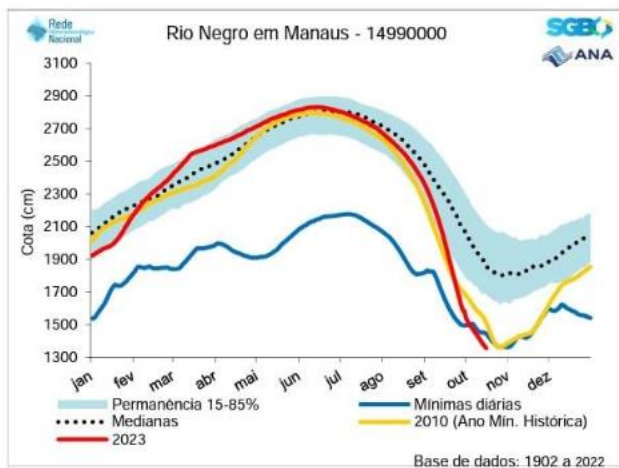


Figura 04. Cotagrama do Rio Negro em Manaus.

Cota em 16/10/2023 : 1359 cm

Maiores Vazantes em Manaus		
Cota atual: Manaus cm		
Ordem	Ano	Cota (cm)
1	2023	1359
2	2010	1363
3	1963	1364
4	1906	1420
5	1997	1434
6	1916	1442
7	1926	1454
8	1958	1474
9	2005	1475
10	1936	1497
11	1998	1503
12	1909	1504
13	1995	1506

Level o Rio Negro in Manaus (left), and list of lowest levels registered since 1902 (right).

As a result, hundreds of communities and towns in the region are isolated. The rivers are no longer navigable, making the transport of cargo and passengers impossible. Preventive and adaptive displacement is occurring, although little data is available. According to a quick survey undertaken by UNICEF with the municipal Social Assistance Secretariats, there are about 3,000 families displaced with children and six emergency shelters active. According to the Indigenous Health Special Secretariat, 44 indigenous villages are totally isolated and about 1,500 are partially isolated. The lack of water and the precariousness of the response are having a huge impact on mental health, with partner municipalities stating that rural communities are showing a worrying picture in terms of mental health.

Amid a period of severe droughts, the State also recorded the worst fire index of the year. According to a survey by the National Institute for Space Research (INPE), 6,991 fires were recorded in September, the second worst result for the month since 1998, affecting the whole population of Manaus (>2 million people) and surroundings. This resulted in heavy smoke in Manaus and surrounding areas, reaching a critical life-threatening air quality level (index 324 - WAQ Index) directly affecting the most vulnerable, including children and pregnant women.

## WASH

The reduction in water levels in rivers and wells directly reduces the availability of water in affected communities. Safe water access is at stake as many wells and water pumps are not functioning anymore, either because of the absence of fuel or changes in water static level making pumps useless.

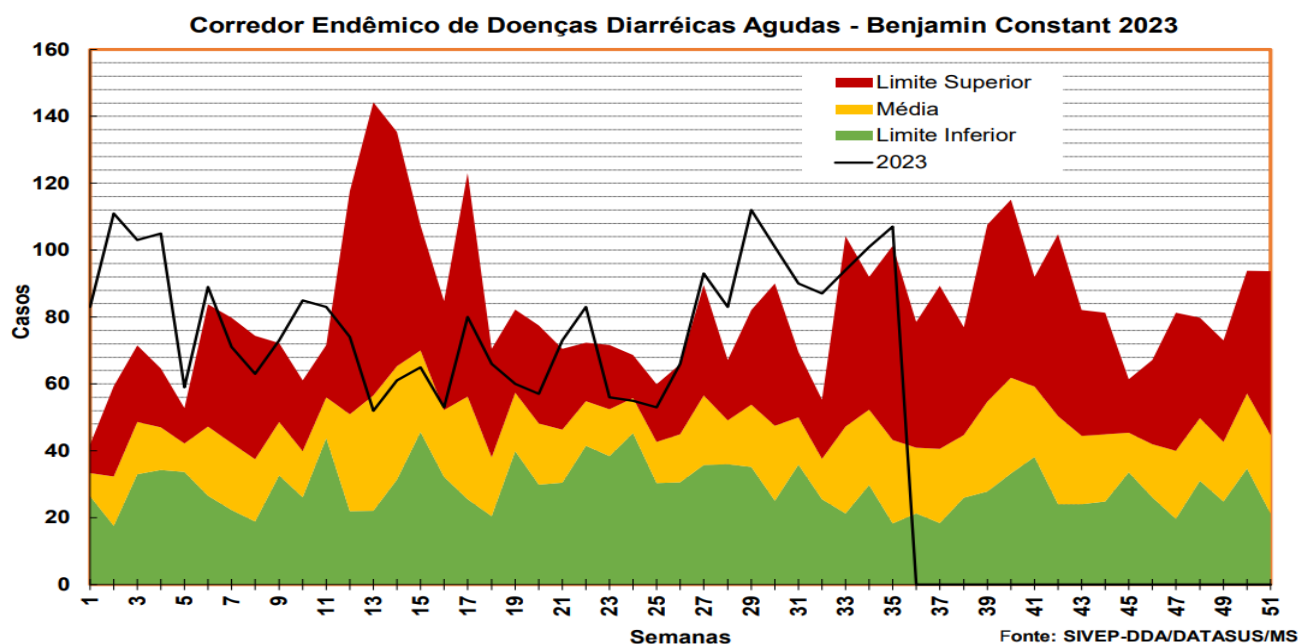
There is also a higher risk of contamination due to concentration of users around a limited number of water sources, and remaining sources are of poorest quality with high turbidity, requiring a pre-treatment before chlorination. Report from indigenous sanitary districts already suggest an increase in acute diarrheal cases and associated deaths (graph on next page shows acute diarrhoea trend above the maximum limit for several weeks in the municipality of Benjamin Constant). According to the Indigenous Health Special Secretariat, at least 25 water systems in indigenous lands have stopped functioning and people are forced to travel long distances to find alternative sources.

The drought in the state of Amazon has presented significant challenges for authorities and affected communities. The Amazon Civil Defense, the State Sanitation Company of Amazon (COSAMA), and the Special Indigenous Sanitary Districts (DSEI) are installing water treatment systems but face serious obstacles due to limited logistics and a shortage of resources.

The Amazon State Health Surveillance Foundation (FVS-AM) distributes hypochlorite for water disinfection, but this distribution depends on municipalities, exacerbating logistical issues. There are also concerns about water safety due to the lack of quality control in government treatment systems as well as monitoring of the use of hypochlorite distributed to households.

The drought threatens access to various regions, with rivers becoming impassable for traditional navigation, affecting municipalities in the Upper, Middle, and Lower Solimões River, Middle and Lower Amazon River; Juruá, Negro, Madeira and Purus Rivers. This exacerbates the isolation of communities.

In addition, the lack of electricity is becoming a concern, as some communities are already experiencing power outages, affecting the operation of water pumping systems.



*Trend of acute diarrhoea is above the maximum limit for several weeks in the municipality of Benjamin Constant. Source: Sanitary Surveillance Foundation (FVS), Amazon State, 2023*

## Health & Nutrition

The current severe droughts cause social, economic and environmental impacts on children's lives, their health and nutrition.

Due to the difficulty in accessing health services, the health system cannot address the high demand at a time when the population needs more assistance. Health professionals can't get to health care units because the river is dry. In some communities, the health care units are having problems with electricity and can be without power for a week, causing expiry of vaccines. River (boat-based) health services are no longer being provided, which affects riverside children and their families.

In several villages, routine home visits do not take place since September, due to the drought and the impossibility of accessing communities, causing discontinuity in health care, since it mainly depends on river logistics, especially in the hard-to-reach areas of the territory. The implications of the drought for maternal and child health are numerous and end up altering the morbidity and mortality profile, especially for children in the affected area, with an increase in cases of acute diarrhoea (est. 15-30% increase according to the Amazon State), dehydration, hepatitis A, parasitosis and others.

With the difficulty of access to food, food insecurity in the coming months may result in an increase in cases of severe acute malnutrition in children. There is no significant record of monitoring the nutritional classification of children in the state, which requires a systematic support. The Amazon State has provided over 400,000 free meals reaching about 104,000 children 0-6 years in the 59 affected municipalities. This emergency support is facing enormous logistical challenges to reach all communities. With a delayed planting season and a likely poor harvest in the coming months, UNICEF is expecting an impact in child malnutrition in communities which already experienced food insecurity.

According to the rapid assessment conducted with partner municipalities in affected areas, food security issues is already reported in rural communities, but they were unable to say whether there are cases of malnutrition, in the

absence of an established nutritional surveillance system. In addition, rural communities are unable to produce food and will likely be facing a considerable increase in food costs.

### Education

Education is also impacted in several communities as students cannot access schools, particularly children and adolescents from riverside communities (*ribeirinhos*). Although most schools haven't closed, as the those who access them school by the river are unable to reach transport system has been suspended in almost all municipalities.

According to the Education Secretariat of the Amazon State, 5,500 students are directly impacted. School lunches are distributed in 40-day rations, accompanied by a school kit to avoid a total halt to learning in areas with no connectivity, but only half of the students have been reached so far. Partner municipalities confirmed that the students who can't get to schools are receiving handouts, in the same way as during the pandemic.

So far, the drought is jeopardizing access to education for 20,000 children and posing a threat to the distribution of water and food for approximately 500,000 people by the end of October. The drought also leads to landslides, as seen in Careiro da Várzea, where a school was suspended, and water treatment systems and wells are compromised.

### Child Protection

According to the State Secretariat for Justice, Human Rights and Citizenship, there are still no increase in cases of child violence due to the drought, but it is important to highlight that there is no system in place to access real-time data.

### Social Protection

Through rapid listening of partner municipalities, there is a large influx of families leaving their homes and going to the municipal centres, staying with relatives or on their boats. The municipal SUAS teams (Brazil's Unified Social Assistance System) are registering these families and providing support and food. One municipality reported having established a shelter. However, information of population movement has not been officially confirmed by State authorities.

In terms of multisectoral response under the Social Assistance Secretariat, only one municipality mentioned intersectoral work, having held meetings to organize and define common actions. Municipalities are working hard to implement responses to minimize the impacts of the drought, but there is still little coordinated work.

## Humanitarian Response, Assessment and Coordination Actions

The emergency response is being coordinated and led by the Government of Amazon State with an operational base in Manaus, the capital. An inter-sectoral crisis cabinet has been established, with participation of Social Protection, Health, Environmental, Justice and Human Rights Secretariats, as well as the State Secretariat, the Amazon Environmental Protection Institute, the Amazon Water Utility, the Health Surveillance Foundation (FVS), PAHO-WHO and UNICEF.

The Amazon State Health Surveillance Foundation activated a situation room with the Health Ministry and PAHO-WHO to monitor epidemiological events and coordinate response, for which UNICEF has been invited to participate.

UNICEF is also part of the indigenous emergency group activated by the Ministry of Indigenous Population, with the FUNAI (National Foundation for Indigenous Population), FEI (Indigenous People State Federation), and indigenous organizations.

Related to information management, a dashboard was created with information from Amazon's Civil Defense. Partners are now collecting information with state Social Assistance on the quantity of children impacted and will share information and jointly analyse data collection. Another dashboard was created by FVS to monitor daily and in real time the situation on health and WASH components. UNICEF has been accessing both dashboards and is collaborating for their improvement.

UNICEF has been responding through the Manaus Field Office with support from the national Emergency Technical Team. UNICEF has met with authorities and is coordinating with sectoral leads and taskforces to ensure a child-focused emergency response, supporting with coordination and information management needs.

UNICEF initiated a coordination with other UN agencies involved in the response (UNFPA, IOM, UNHCR) seeking to create synergies and ensure that other vulnerable groups such as migrants and refugees are considered in the local response.

A Multi-sectoral Rapid Needs Assessment focused on children has been designed and proposed by UNICEF with validation from government and indigenous organizations. UNICEF is currently training the public ministry staff and government community workers to gather data through the designed questionnaire.

## UNICEF Response Plan

UNICEF leveraged its nationwide programme UNICEF Seal at municipal level to undertake a rapid listening of municipalities' main challenges, allowing to grasp key information about the current situation. Team in Manaus is coordinating with indigenous networks, such as COIAB (Coordination of the Indigenous Organisations of the Brazilian Amazon), FOIRN (Federation of the Indigenous Organisations of the Rio Negro Basin, a women-focused organisation), APIAM (Articulation of Indigenous Organisations and People of the Amazon) to collect more community-based information through a child-focused assessment regarding health (services continuity), nutrition & WASH.

A rapid child-focused assessment will be launched with the State Health Secretariat and Council of the Municipal Health Secretariat, and with the Social Assistance State Secretariat to gather additional evidence on the critical needs regarding the situation of children and adolescents and key gaps.

Meanwhile, following interaction with the above-mentioned stakeholders, the following lines of action have been defined:

**WASH:** UNICEF will support the Amazon State Health Surveillance Foundation (FVS) in outbreak assessments related to diarrhoea.

As an immediate response to water insecurity, in collaboration with the Government of Amazon, which will assist with logistics, UNICEF shall provide sachets for water purification and clay filters to address diarrhoea outbreaks. Additionally, in partnership with the government, UNICEF shall distribute menstrual hygiene products.

UNICEF will support the priority Special Indigenous Health Districts (DSEIs) in the State of Amazon in risk mitigation within indigenous communities by implementing water supply systems for human consumption using membrane filters in indigenous villages. We will also assist indigenous and riverine communities with equipment to deepen existing shallow wells and in installing solar-powered pumps for water collection to reduce exposure to energy shortcuts as currently observed.

For water quality control, UNICEF will aid the priority DSEIs in the State of Amazon with mini laboratories for analysing basic water quality parameters and promote the strengthening of alert system strategies concerning access to clean drinking water.

UNICEF will support priority DSEIs in the State of Amazon in assessing WASH conditions in Indigenous Health Units (UBSi) and in the development of action plans for improved use of the WASH FIT tool. UNICEF will also assist in developing Water Safety Plans (WSP) and early warning system for drought impacts and other climatic events.

Upon the request of the Social Protection Secretariats, UNICEF will support with the provision of sanitary pads and wet wipes for about 50,000 adolescent girls.

**Health & Nutrition:** Considering the challenge that health professionals have to access communities and vice versa, and the risk of delay in children's vaccination, UNICEF is supporting the monitoring of the vaccination status of children by donating vaccination discs follow-up to community health agents.

UNICEF is supporting a rapid assessment of the health and nutritional needs of children and pregnant women to assess the impacts of the drought and will support the Amazon State and Indigenous Health Districts in surveying the nutritional profile of children, with nutritional classification discs (Weight x Age and Height x Age) and MUAC tape. UNICEF will support the training of health professionals to identify clinical signs of child malnutrition.

Micronutrient sachets to fortify children's diets are being purchased and will be donated to the Health States Secretariat and Indigenous Special Health Secretariat as per needs identified.

Requirement for RESOMAL for use in treating diarrhoea in children with acute malnutrition and therapeutic milk purchase F75 and F100 to treat children with severe malnutrition and its clinical complications is being assessed.

As a second response phase, UNICEF will support in drawing up nutritional care flows for children, with referral and counter-referral of health services, with attention to riverine and indigenous territories. A protocol for comprehensive nutritional care for children with acute malnutrition in emergency contexts in primary health care and at hospital level, with respect for local dietary practices will be developed, and actions to prevent malnutrition and strengthen traditional knowledge of malnutrition prevention and treatment will be defined jointly with health actors.

**Technical support and advocacy for child-focused humanitarian response:** As immediate step, UNICEF is assisting the Social Assistance and Health Secretariats to collect child-focused data, so to measure impacts on children and adolescents, to assess the appropriateness of protection measures for children and adolescents and the continuity of MCHN services. UNICEF also works with Indigenous organizations to systematize the collection and analyses of child-focused data at community-level.

**Child-centered disaster risk reduction:** Due to the forecast of a potential strong drought in 2024 again, and potentially heavy rains and flooding during the rainy season, UNICEF will provide technical assistance to most-affected UNICEF Seal municipalities to strengthen their knowledge and use of the National Protocol for Integrated Protection of Children and Adolescents in situation of disaster. Early warning system in indigenous lands is also being discussed with relevant authorities and partners.

## External Media

- CNN: <https://www.cnn.com/2023/10/17/americas/amazon-river-lowest-levels-drought-climate-intl/index.html>
- BBC: <https://www.bbc.com/news/in-pictures-67087949>
- NASA: <https://earthobservatory.nasa.gov/images/151965/drought-fuels-wildfires-in-the-amazon>
- Mongabay: <https://news.mongabay.com/2023/10/amazon-drought-cuts-river-traffic-leaves-communities-without-water-and-supplies/>
- Amazon State Govt (in Portuguese): [Governo do Amazonas e Unicef estudam medidas para conter impactos das mudanças climáticas na saúde de crianças](#)
- Amazon State Civil Defense: [Instagram photos and videos](#)

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## Annex A

Preliminary Plan of Action based on estimated figures.

Sector	Core activities	Population in Need	UNICEF Target	Financial requirement	Estimated timeframe
		(#ppl)	(#ppl)	(USD)	(in months)
Multi-sectoral coordination and information management	<b>Activity 1.1:</b> Undertake a rapid assessment of impacts through listening key actors at municipal level and through social media listening	600,000	50,000	\$ 30,000	One month
Multi-sectoral coordination and information management	<b>Activity 1.1:</b> Support the technical Secretariats of the Amazon State and indigenous organizations to collect child-focused data in affected areas				One month
Multi-sectoral coordination and information management	<b>Activity 1.3:</b> As a second phase, provide technical assistance to most affected SEAL municipalities and indigenous organizations to strengthen preparedness and early warning systems with a focus on climate related events and impacts on children and adolescents				Six months
Multi-sectoral coordination and information management	<b>Activity 1.4:</b> Provide technical assistance for social assistance system in the Amazon State for improving child-focused emergency responses in line with the national protocol for integrated protection of children and adolescents during disasters				Six months
Health	<b>Activity 2.1:</b> Provision of 1,00 immunization monitoring disks, 1,000 nutrition surveillance disks, 5,000 MUAC to the Health Municipal Secretariats, in coordination with the State health coordination for prioritization.	26,600	26,600	\$ 150,000	One month
Health	<b>Activity 2.2:</b> Provide technical support for maternal and child health and nutrition surveillance in close collaboration with the Amazon State Response Team Coordination.				Three months
Health	<b>Activity 2.3:</b> Advocate and develop a technical note for Nutrition in emergency situations. for the Amazon State Health Secretariat.				Three months
Health	<b>Activity 2.4:</b> Support for training health professionals to identify clinical signs of child malnutrition (tele-medicine)				Three months
Health	<b>Activity 2.5:</b> Purchase of 20,000 micronutrient sachets to support weight gain in children classified as being at nutritional risk				Three months

Social and Behavior Change	<b>Activity 3.2:</b> Produce and disseminate child-centered messages for Risk Communication and Community Engagement to support affected populations with information on smoke and drought risks, access to services, health waves, nutrition, WASH and hygiene practices.				One month
Social and Behavior Change	<b>Activity 3.3:</b> Use U-report as an event-based community surveillance system – with participation of young people and adolescents – in prioritized areas to collect information on the immediate needs and events occurring in communities, and disseminate risk communication and community engagement strategies, including the prevention of sexual exploitation and abuse.	151,000	50,000	\$ 20,000	Three months
Water, Sanitation, Hygiene	<b>Activity 1.8:</b> Provide WASH technical support for acute diarrhea outbreak assessment missions jointly with the Health Surveillance Foundation and OPS-OMS		NA		Three months
Water, Sanitation, Hygiene	<b>Activity 1.9:</b> Provision of 200,000 purifying sachet and 1,000 clay filters as a contribution to response mechanisms to outbreaks of acute diarrheas		20,000		One month
Water, Sanitation, Hygiene	<b>Activity 3.3:</b> Provision of 20 membrane filters to mitigate risks, equipment for wells deepening and provision of 40 solar-powered water pumps to improve sustainability of water systems	600,000	10,000	\$ 885,000	Three months
Water, Sanitation, Hygiene	<b>Activity 3.4:</b> Provision of 150,000 menstrual pads and wet wipes for menstrual hygiene		50,000		One month
Water, Sanitation, Hygiene	<b>Activity 3.5:</b> Technical support to assess WASH conditions in UBSi (Basic Health Units) focusing on climate resilient WASH systems		NA		Six months
Child Protection	<b>Activity 1.3:</b> Advocate for strengthening the monitoring of child protection risks and mental health condition in affected municipalities and provide technical collaboration to support victims of violence in prioritized municipalities.	151,000	50,000	\$ 10,000	Six months
Education	<b>Activity 1.6:</b> Technical support for implementation of School Active Search in Emergency situation	20,000	5,500	\$ 10,000	Six months